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10/711,714	09/30/2004	Stewart Gilman	2003-002	5713

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EXAMINER

HAYES, BRET C

ART UNIT

PAPER NUMBER

3641

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Please find below and/or attached an Office communication concerning this application or proceeding.



## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1 – 14 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

2. It has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. In this case, it is apparently intended to include the structure of a weapon tube, as in a combination-type claim. However, this cannot be permitted. Therefore, claims 13 & 14, attempting to recite further limitations into the weapon tube, cannot be have such limitations addressed properly. The claims will be further treated on the merits *only* as the device is *capable of performing the function* of being fired from such a weapon tube.
3. Claims 13 & 14 are objected to because of the following informalities: line 4 of each, remove the comma “,” after “coaxial” as unnecessary. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
5. Claims 1 – 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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6. The term "slightly" in claim 1 is a relative term, which renders the claim indefinite. The term "slightly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. In this case, there is no reasonable scope of 'slightly smaller' that would be excluded from infringing upon the claims, were they to be held allowable.

7. Claims 13 & 14 recite the limitation "the tails" in line 3. There is insufficient antecedent basis for this limitation in the claims. Because of the ambiguity of claims 13 & 14, it is not readily apparent exactly how the stabilizer connects to *a* singular tail as has been claimed.

Therefore, the claims cannot be further treated on the merits.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Nos. 463,922 to Russell in view of 5,164,538 to McClain III (previously cited).

10. Re – claim 1, Russell discloses the claimed invention including a finless projectile comprising a body **A** and **B**, (both of which include a cylindrical portion), for example, a nose, closest to **A**, having a smooth surface\*, secured to a forward section of the body, a finless\*\* tail, around **b** et al., secured to a rearward section of the body, wherein the cylindrical portion(s) of the body include an outer diameter that is slightly smaller than an inside diameter of the weapon tube (**B** is clearly shown as such), for example, wherein the tail comprises a generally cylindrical

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tail piece and a slotted tail flange **b**, wherein the flange comprises a plurality of radially angled slots **b**<sup>1</sup> and **b**<sup>2</sup>, for example, wherein the nose provides increased mass. \*With respect to the nose of Russell having a smooth surface, it would appear from the figures that the nose has at least one smooth surface, **a**, for example. \*\*With respect to the tail being finless, Russell discloses elements **b** as being 'lugs' or 'projections', but not fins as would be understood.

However, Russell does not disclose wherein the body further comprises an obturator.

McClain III teaches that obturator 140 is very well known in the art of finless projectiles as the primary means for sealing gas and engaging rifling within a weapon tube, as set forth col. 6, line 43.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Russell to include an obturator as taught by McClain III in order to provide a gas seal and engagement means for rifling of a weapon tube.

11. Re – claims 2 & 3, Russell in view of McClain III discloses the claimed invention except for the variations in dimensions. It would have been an obvious matter of design choice to modify Russell to be usable with any modern (or antiquated) piece of equipment as seen fit, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). Further, in *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions

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would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

12. Re – claim 4, Russell in view of McClain III further discloses approximately 2 to 8 radially angled slots. From the figures, there would appear to be exactly 4.

13. Re – claim 5 & 6, see rejection of claims 3 & 4 above.

14. Re – claim 7, Russell in view of McClain III further discloses the tail comprising a cylindrical section as claimed, perhaps best seen in Fig. 16, for example – note, the edges of elements **b** clearly fall into the definition of a cylindrical section as claimed.

15. Re – claim 8, Russell in view of McClain III further discloses the radially angled slots defining an angle of approximately 30 degrees with respect to an axis of the projectile. This is especially apparent from Fig. 10, for example.

16. Re – claim 9, Russell further discloses the body comprising an inwardly tapering section **a'**, for example, and wherein the body comprises a short cylindrical section\*. From the figures, such would appear to be the case.

17. Re – claim 10, Russell further discloses the nose having a generally ogival shape – as seen in the figures, for example.

18. Re – claim 11, Russell discloses the claimed invention as applied above except, arguably perhaps, for the nose having a generally cone shape. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Russell to include a nose having a generally cone shape, since there is no invention in merely changing the shape or form of an article without changing its function except in a design patent. *Eskimo Pie Corp. v. Levous et al.*, 3 USPQ 23. In this case, the function does not change at all. The device, whether having

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a cone shaped nose or ogival or a combination of the two shapes, would inherently have the same function, namely, to be a projectile. Further, it is well known in the projectile art to implement a cone shape. Should such be requested, examiner will provide prior art documentation.

19. Re – claim 12, Russell further discloses the nose having a generally ogival/cone combination shape – as seen in the figures, for example.

***Conclusion***

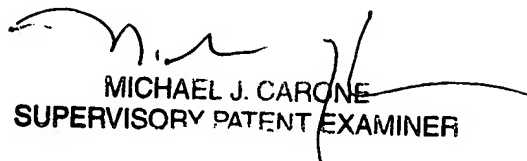
Any inquiry concerning this communication should be directed to Bret Hayes at telephone number (571) 272 – 6902 or email address [bret.hayes@uspto.gov](mailto:bret.hayes@uspto.gov). The examiner can normally be reached Monday through Thursday from 5:30 am to 4:00 pm, Eastern Standard Time.

The Central FAX Number is **571-273-8300**.

If attempts to contact the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached at (571) 272 – 6873.

Bret Hayes

25-Jun-06

  
MICHAEL J. CARONE  
SUPERVISORY PATENT EXAMINER